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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/581,122	01/14/2002	Vijay K. Iyer	98-503-WO	9429

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Cheryl L Gastineau
Reed Smith
PO Box 488
Pittsburgh, PA 15230

EXAMINER

KREMER, MATTHEW J

ART UNIT	PAPER NUMBER
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3736

DATE MAILED: 09/08/2003

16

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/581,122

Applicant(s)

IYER ET AL.

Examiner

Matthew J Kremer

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 15-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I in Paper No. 15 is acknowledged.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-2, 6, 8, and 11-12 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent 5,551,424 to Morrison et al. (cited by Applicant). Morrison et al. teaches light generating means 25 and 27 which are placed at different locations which result in two different optical measurement paths, light detecting means 17 and 18, and a processing system which includes controlling the light generating means using element 30, measuring incident light using element 18a, and producing a measurement using element 19. (Figs. 1-2 of Morrison et al.). In regard to claims 2 and 12, the measurement comprises a different measurement associated with each optical path since one measurement is an infrared transmission and the other is a red transmission. In regard to claim 6, only one probe is disclosed. (Fig. 2 of Morrison et

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al.). In regard to claim 8, light detecting means comprises a light transmitting fiber 17. (Fig. 2 of Morrison et al.). In regard to claim 11, Morrison et al. teaches emitting light into the skin, transmitting light through the tissue to fiber 17, having fiber 17 receive the light, and measuring the light using detector 18. (column 5, lines 26-50 of Morrison et al.). Morrison et al. further teaches the use of a pulse oximeter 19, which produces measurements indicative of oxygen saturation.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-6 and 9-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 5,529,064 to Rall et al. (cited by Applicant) in view of U.S. Patent 5,782,756 to Mannheimer. Rall et al. teaches light generating means 12 which are placed at different locations which result in two different optical measurement paths, light detecting means 13, and a measuring unit 3. (Figs. 1 and 4 of Rall et al.). Rall et al. does not teach the particulars of the light source or the measuring unit. Mannheimer teaches a light source and measuring unit used for monitoring oxygen saturation in a fetus, which would fulfill the requirements of providing light source and measuring unit as set forth in Rall et al. Therefore, it would have been obvious to one having ordinary

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skill in the art at the time the invention was made to use the light source and measuring unit of Mannheimer in the device and method of Rall et al. since Rall et al. requires the use of light sources and a measurement unit and Mannheimer teaches a suitable light source and measurement unit. In regard to claims 1, 9, and 11, Mannheimer teaches a measuring unit 34 that controls the light sources, measures the incident light, and produces a measurement. In regard to claims 2 and 12, the measurement comprises measurements common to both optical paths since both emitter locations have the same wavelengths. In regard to claim 3, three wavelengths are used at both locations. In regard to claims 4, 9-10, and 13-14, the measuring unit produces a measurement $\text{SpO}_2^{\text{corrected}}$ from selectively weighted ratios of the light measured from the three wavelengths along each of the plurality of optical paths. According to equation 4 of Mannheimer, the 735/900 ratio is weighted $(k+1)$ while the 660/900 ratio is weighted $-k$. In regard to claim 5, the measuring unit produces a measurement $\text{SpO}_2^{\text{corrected}}$ from selectively weighting of wavelengths along each of the plurality of optical paths. According to equation 4 of Mannheimer, the 735 nm wavelength is weighted $(k+1)$ while the 660 nm wavelength is weighted $-k$. In regard to claim 6, a single probe is disclosed. (Fig. 4 of Rall et al.).

6. Claims 1 and 7 are rejected under 35 U.S.C. 103(a) as being obvious over U.S. Patent 6,298,253 to Buschmann in view of U.S. Patent 5,782,756 to Mannheimer.

The applied reference has a common inventor with the instant application. Based upon the earlier effective U.S. filing date of the reference, it constitutes prior art

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only under 35 U.S.C. 102(e). This rejection under 35 U.S.C. 103(a) might be overcome by: (1) a showing under 37 CFR 1.132 that any invention disclosed but not claimed in the reference was derived from the inventor of this application and is thus not an invention "by another"; (2) a showing of a date of invention for the claimed subject matter of the application which corresponds to subject matter disclosed but not claimed in the reference, prior to the effective U.S. filing date of the reference under 37 CFR 1.131; or (3) an oath or declaration under 37 CFR 1.130 stating that the application and reference are currently owned by the same party and that the inventor named in the application is the prior inventor under 35 U.S.C. 104, together with a terminal disclaimer in accordance with 37 CFR 1.321(c). For applications filed on or after November 29, 1999, this rejection might also be overcome by showing that the subject matter of the reference and the claimed invention were, at the time the invention was made, owned by the same person or subject to an obligation of assignment to the same person. See MPEP § 706.02(I)(1) and § 706.02(I)(2).

Buschmann teaches an oxygen saturation monitor that includes a plurality of light sources 7. (Fig. 4b of Buschmann). Since there are two light sources located at two different locations, the optical paths from each light source would be different, thereby generating a plurality of optical measurement paths. Buschmann teaches a light detecting means 6 and the light emitting means 5 on a spiral hollow needle with window areas. (Fig. 5b of Buschmann). Buschmann further teaches a processing system 4. (Fig. 1 of Buschmann). Buschmann does not teach the particulars of the measuring unit. Mannheimer teaches a measuring unit used for monitoring oxygen saturation in a

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fetus, which would fulfill the requirements of providing a measuring unit as set forth in Buschmann. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use the measuring unit of Mannheimer in the device of Buschmann since Buschmann requires the use of a measurement unit and Mannheimer teaches a suitable measurement unit. In regard to claim 1, Mannheimer teaches a measuring unit 34 that controls the light sources, measures the incident light, and produces a measurement.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J Kremer whose telephone number is 703-605-0421. The examiner can normally be reached on Mon. through Fri. between 7:30 a.m. - 4:00 p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Winakur can be reached on 703-308-3940. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0858.



Matthew Kremer
Assistant Examiner
Art Unit 3736



MAX F. HINDENBURG
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700